UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,892	03/15/2004	Eric Kauffman	250049US6YA	8339

22850 7590 03/27/2006	EXAMINER
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ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This **Final** Office Action is in response to Applicant's amendment filed January

17, 2006. Applicant's amendment amended claims 1-38 and added new claims 39-41.

Currently Claims 1-41 are pending.

Response to Amendment

2.   The Objection to the Title in the first office action is withdrawn in response to

Applicant's amendment to the Title.

Response to Arguments

3.   Applicant's arguments with respect to claims 1-41 have been considered but are

moot in view of the new ground(s) of rejection.

It is noted that the applicant did not challenge the officially noticed facts cited in

the previous office action(s) therefore those statements as presented are herein after

prior art.   Specifically it has been established that it was old and well known in the art at

the time of the invention:

        - that semiconductor manufacturing facilities/environments comprise at least one

of the following manufacturing systems (tools, components, equipment, etc.): etch,

deposition, track, thermal, ion implant, lithography, planarization, metrology or test;

        - to assign (re-assign, forward) work activities from one user (service technician)

to another user (service technician); and

- for one service operator (technician, user, etc.) to asses the performance of another service operator.

Claim Objections

4.   Claim 37 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim merely states utilizing a computer readable medium to cause a computer to perform the method of managing service activities of Claim 30.

Examiner suggests applicant amend Claim 37 to positively recite the methods steps recorded in computer executable form on the computer readable medium to overcome this objection.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6.   Claims 1, 3, 5-6, 8-10, 12, 15-16, 18, 21-40 are rejected under 35 U.S.C. 102(a)

as being anticipated by Lurcott et al., WO 03/04882.

Regarding Claims 1, 21, 39 and 40 Lurcott et al. teach a system and method for

managing (monitoring, configuring, operating, etc.) service activities relating to

semiconductor manufacturing comprising (Abstract; Paragraphs 2-3, Page 2; Paragraph

3, Page 19; Figures 5-6):

      - receiving service activity data (e.g. tool usage data) relating to at least one of

the following: a service component, a service operator or a service account, via a data

collection subsystem (module, component, code, etc.; SEMATECH e-Diagnostics levels

0 and 1; Paragraph 3, Page 2; Paragraph 2, Page 5; Page 7; Last Paragraph, Page 15;

Figure 5, Element 500);

      - storing service activity data via a data storage subsystem connected to the

data collection subsystem (SEMATECH e-Diagnostics levels 0 and 1; Paragraph 3,

Page 2; Paragraph 2, Page 5; Page 7; Last Paragraph, Page 15; Figure 5);

      - providing service action data using the service activity data by performing at

least four (at least two, at least one) of the following service functions for a

semiconductor manufacturing component: repair, start-up, preventative maintenance,

cleaning, revisions, enhancements, de-installation, service education or service

collaboration via a service action subsystem (configuration, operating,

remote/collaborative diagnostics, SEMATECH e-Diagnostics levels 2-3; Paragraph 1,

Page 4; Paragraphs 2-4, Page 8; Last Paragraph, Page 12; Last Paragraph, Page 13;

Paragraph 2, Page 16; Paragraph 3, Page 19);

  - enabling users to access all service functions via a graphical user interface

which includes a menu screen (portal; Paragraph 3, Page 5; Last Two Paragraphs,

Page 8; Paragraph 1, Page 16; Paragraphs 3-4, Page 18); and

  - utilizing the service action data to perform a service action (Last Paragraph,

Page 13; Paragraph 1, Page 14).

  Regarding Claim 3 Lurcott et al. teach an activity management system and

method wherein the service component further comprises at least one of the following: a

manufacturing platform, manufacturing tool or manufacturing part (Paragraph 3, Page 6;

Figure 2).

  Regarding Claim 5 Lurcott et al. teach that the service activity management

system and method is utilized to manage/service service components (tools, platforms,

etc.) in a semiconductor-manufacturing environment wherein the components comrpise

at least one of the following manufacturing systems (tools, components, equipment,

etc.): etch, deposition (electrochemical deposition; Paragraph 3, Page 13), track,

thermal, ion implant, lithography, planarization, metrology or test.

Regarding Claim 6 Lurcott et al. teach an activity management system and

method wherein the manufacturing service component part further comprises at least

one of the following: a consumable or non-consumable part (raw materials, parts,

supplies, automated supply management, just-in-time inventory, etc.; Paragraph 3,

Page 19; Paragraph 1, Page 20).

Regarding Claim 8 Lurcott et al. teach an activity management system and

method wherein the system is at least one of the following: a web-based software

application or a downloadable client software application (Last Paragraph, Page 3;

Paragraph 2, Page 6; Paragraphs 3-4, Page 18).

Regarding Claim 9 Lurcott et al. teach an activity management system and

method further comprising an interface for a service operator to enter as well as extract

service activity data into/from the system (SEMATECH e-Diagnostics levels 0 and 1;

Paragraph 2, Page 11; Last Paragraph Page 12; Last Paragraph Page 15; Paragraphs

2-4, Page 18).

Regarding Claim 10 Lurcott et al. teach an activity management system and method wherein the service operator interface includes a graphical user interface (portal; Paragraphs 2-4, Page 8; Paragraphs 3-4, Page 18).

Regarding Claim 12 Lurcott et al. teach an activity management system and method further comprising at least one service component test and corrective action based on matching current and stored service activity data associated with the service component (self-diagnostics, collaborative maintenance, preventative maintenance learning process, pattern matching; Paragraphs 2-4, Page 8; Paragraph 2, Page 11; Last Paragraph, Page 13).

Regarding Claim 15 Lurcott et al. teach an activity management system and method wherein the service component includes a manufacturing service tool and the corrective action includes a replacement of a manufacturing service part in the manufacturing service tool (preventive maintenance; Paragraphs 3-5, Page 12; Last Paragraph, Page 13; Paragraph 1, Page 14; Figure 6).

Regarding Claim 16 Lurcott et al. teach service activity management system and method further comprising tracking a first manufacturing service part and a second manufacturing service part wherein the first part replaces the second part (ordering/acquiring the parts necessary for maintenance, just-in-time inventory management, etc.; Paragraph 1, Page 14; Last Two Paragraphs, Page 19).

Regarding Claim 18 Lurcott et al. teach an activity management system and

method wherein the service component further comprises a manufacturing service tool

with one or more manufacturing service parts and the service action associates one or

more manufacturing service parts with the manufacturing tool (just-in-time inventory

management, etc.; Paragraph 1, Page 14; Last Two Paragraphs, Page 19).

Regarding Claims 22, 30 and 37-38 Lurcott et al. teach an activity management

system and method for managing service activities relating to semiconductor

manufacturing comprising:

- collecting service activity data relating to semiconductor services via a data

collection subsystem (module, code, program, etc.; SEMATECH e-Diagnostics levels 0

and 1; Paragraph 3, Page 2; Paragraph 2, Page 5; Page 7; Last Paragraph, Page 15;

Figure 5, Element 500);

- storing the service activity data via a data storage collection subsystem

coupled to the data collection subsystem (SEMATECH e-Diagnostics levels 0 and 1;

Paragraph 3, Page 2; Paragraph 2, Page 5; Page 7; Last Paragraph, Page 15; Figure 5,

Element 500);

- performing a service component service function for a semiconductor

manufacturing component (tool, equipment, part, process, etc.) and a non-service

component service function for the semiconductor manufacturing component in order to

assist a service operator in performing a service action for the semiconductor

manufacturing component via a service action subsystem (SEMATECH e-Diagnostics,

Levels 1-2; preventative maintenance, supply/parts/materials ordering, self-diagnostics;

Paragraph 3, Page 4; Paragraph 1, Page 4; Paragraphs 2-5, Page 8; Last Paragraph,

Page 13; Paragraph 1, Page 14); and

    - performing a service action for the semiconductor manufacturing component

based on the results of the service or non-service component service function

(Paragraph 3, Page 4; Paragraph 1, Page 4; Paragraphs 2-5, Page 8; Last Paragraph,

Page 13; Paragraph 1, Page 14).

    Regarding Claims 23-24 and 31-32 Lurcott et al. teach an activity management

system and method further comprising the collection of data manually and/or

automatically via the data collection subsystem (Paragraphs 1-3, Page 7; Figure 5).

    Regarding Claims 25-26 and 33-34 Lurcott et al. teach an activity management

system and method further comprising collecting and storing service activity data

related to at least one of the following: a service component, a service operator or a

service account (Paragraph 3, Page 2; Paragraph 2, Page 5; Page 7; Last Paragraph,

Page 15; Figure 5).

    Regarding Claims 27 and 35 Lurcott et al. teach an activity management system

and method further comprising performing a service component function by performing

at least one of the following for a service component: repair, start-up, preventative

maintenance, cleaning, revisions, enhancements, de-installation or service education

(configuration, operating, remote/collaborative diagnostics, SEMATECH e-Diagnostics

levels 2-3; Paragraph 1, Page 4; Paragraphs 2-4, Page 8; Last Paragraph, Page 12;

Last Paragraph, Page 13; Paragraph 2, Page 16; Paragraph 3, Page 19).

Regarding Claims 28 and 36 Lurcott et al. teach an activity management system

and method wherein a non-service component service function is performed by allowing

a service operator to do one of the following: interface with project and/or customer

plans, integrate new test or corrective actions (Last Paragraph, Page 12; Paragraphs 1-

2, Page 4), amend a current test or correction action, enter new documentation

pertaining to manufacturing service tools, parts or service agreement, review, enter or

amend escalation hot-boards, access key performance indicators, reports (Paragraphs

2-4, Page 16), procedures, job descriptions, help desk action plans, employee action

plans or file, access information relating to manufacturing service agreements,

manufacturing service platforms, manufacturing service tools (preventative

maintenance, collaborative e-diagnostics; Paragraph 2, Page 11; Figure 6) or

manufacturing service parts (Paragraphs 3-5, Page 8).

Regarding Claim 29 Lurcott et al. teach an activity management system and

method wherein the provided service action data is used by the service operator to

perform service actions (Paragraphs 1-3, Page 7; Figure 5).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 2, 4, 19-20 and 41 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lurcott et al., WO 03/04882 as applied to claims 1, 3, 5-6, 8-10, 15-

16, 18 and 21-40 above.

Regarding Claims 2 and 41 Lurcott et al. teaches an activity management system

and method for managing service activities relating to semiconductor manufacturing

wherein the plurality of at least four/two/one service functions further comprise tests,

corrective actions, reports, service collaboration and the like as discussed above.

Lurcott et al. does not expressly teach that the plurality of service functions

further comprise all of the specific functions/activities/services as claimed; however

these differences are only found in non-functional descriptive material and are not

functionally involved in the steps recited nor do they alter the recited structural

elements. The recited method steps would be performed the same regardless of the

specific labels used to describe a plurality of service functions. Further, the structural

elements remain the same regardless of the specific labels used to describe a plurality

of service functions. Thus, this descriptive material will not distinguish the claimed

invention from the prior art in terms of patentability, *see In re Gulack, 703 F.2d 1381,*

1385, 217 USPQ 401, 404 (Fed. Cir. 1983); In re Lowry, 32 F.3d 1579, 32 USPQ2d

1031 (Fed. Cir. 1994); MPEP 2106.

Regarding Claim 4 Lurcott et al. does not expressly teach how the service

components (tools, equipment, systems) are arranged (laid out, connected, etc.).

Official notice is taken that cluster and serial tool arrangements are old and well

known in semiconductor manufacturing.

It would have been obvious to one skilled in the art at the time of the invention

that the activity management system and method as taught by Lurcott et al. would have

benefited from utilizing any of a plurality of semiconductor tool configurations including

but not limited to cluster and/or serial tool arrangements in view of the teachings of

official notice.

Further it is noted that the phrases "cluster" and "serial" tool arrangements

merely represent non-functional descriptive material and are not functionally involved in

the steps recited nor do they alter the recited structural elements. The recited method

steps would be performed the same regardless of the specific tool arrangements.

Further, the structural elements remain the same regardless of the specific tool

arrangements. Thus, this descriptive material will not distinguish the claimed invention

from the prior art in terms of patentability, *see In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); In re Lowry, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2106.*

Regarding Claim 19 Lurcott et al. does not teach enabling a service operator/technician to assign another operator (user) to an action plan (work order, service items, etc.) as claimed.

Official notice is taken that assigning (re-assigning, forwarding, passing, etc.) of work activities (service activities, work orders, tasks, etc.) by one user to another user is old and very well known. For example a service technician maybe assigned an order but realizes that another technician would be more capable (more relevant skills/tools, availability, proximity, etc.) of handling the service request (action, task, order, etc.) therefore the operator forwards (re-assigns, transfers, etc.). Another example would be forwarding a partially complete service activity (work order) from one operator to another due to a shift change, additional/newly discovered work/requirements or the like.

It would have been obvious to one skilled in the art at the time of the invention that the service activity management system and method as taught by Lurcott et al. would have benefited from the ability to have a service operator assign a service activity (task, action plan, work order, etc.) to another user in the system (employee, customer,

project, etc.) in view of the teachings of official notice; the resultant system enabling

users the flexibility to forward/re-assign service activities (work orders, tasks, plans,

etc.) to other more applicable resources (operators, groups, etc.).

Regarding Claim 20 Lurcott et al. does not teach enabling an operator (user) to

assess the performance (activity, work, etc.) of another operator as claimed.

Official notice is taken that enabling a user to asses the performance of another

user (operator, etc.) is old and well known. For example it is common in maintenance

operations, especially outsourced/contracted maintenance operations, for an operator to

be required to get approval (e.g. signature) certifying the service repair (work order) was

completed and satisfactory or the certification of work completed by a service operator

in the training of a junior operator by a supervising service operator is another example

of enabling one user to asses the performance of another user.

It would have been obvious to one skilled in the art at the time of the invention

that the service activity management system and method as taught by Lurcott et al.

would have benefited from the ability to have a service operator asses the performance

of a service activity (task, action plan, work order, etc.) by another user in the system

(employee, customer, project, etc.) in view of the teachings of official notice; the

resultant system enabling customers (clients) to approve that the service activity/action

was completed to their satisfaction/requirements.

9.   Claims 7, 11, 13-14 and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over over Lurcott et al., WO 03/04882 as applied to claims 1-6, 8-10,12,

15-16 and 18-41 above and further in view of Schlabach et al., U.S. Patent No.

6,810,406.

        Regarding Claim 7 Lurcott et al. teaches an activity management system and

method for managing service activities relating to semiconductor manufacturing as

discussed above.

        Lurcott et al. does not expressly teach that a service account (customer, supplier,

manufacturer, etc) further comprises at least one of the following: a service contract,

service warranty or manufacturing system department as claimed.

        Schlabach et al. teach a service account (relationship, contract, agreement,

warranty, etc.; Column 4, Lines 61-68; Column 11, Lines 12-17; Figure 2, Element 62)

wherein the service account includes at least one of the following (Column 4, Lines 65-

66; Figure 2, Element 62): service contract (agreement), warranty or manufacturing

system department in an analogous art of service activity management for the purposes

of enabling service operators (technicians) to access "a plethora of repair, diagnostic

and operational information needed to efficiently and accurately troubleshoot locomotive

problems and undertake the necessary repairs" (Column 5, Lines 30-34).

More generally Schlabach et al. teach a system and method for managing service activities comprising:

- receiving service activity data related to at least one of a service component (item, equipment, part, etc.; Column 2, Lines 59-68; Column 3, Lines 1-17; Figure 2) a service operator (technician, personnel, staff, etc.; Column 5, Lines 30-35; Figures 1, 5-6), or a service account (relationship, contract, agreement, warranty, etc.; Column 4, Lines 61-68; Column 11, Lines 12-17; Figure 2, Element 62), via a data collection system (module, code, subsystem, program, etc.);

- storing the service activity data, via a data storage system (Figure 2; Figure 10, Element 534);

- providing service action data utilizing the service activity data by performing at least two of the following (Figures 2 and 10): component repair (Column 5, Lines 30-57), start-up (initialization, set-up, installation), preventative maintenance (Column 6, Lines 35-60), cleaning, revisions, enhancements (upgrades, configuration management; Column 7, Lines 53-68; Column 9, Lines 36-68), de-installation (uninstall, decommission, etc.), education (training; Column 7, Lines 43-64) or collaboration (Column 5, Lines 45-63);

- provides service action data utilizing the service activity data by performing at least *two* of the following further comprises: setting project action plans (work scope, work orders, recommendations, etc.; Column 5, Lines 30-55; Figure 10), customer action plans (work scope, work orders, etc.; Column 20, Lines 11-44; Figure 10), service component operations, test and corrective actions (Column 15, Lines 47-68), setting

escalation hot-boards (monitoring board; Column 20, Lines 47-57), key point indicator

dashboards, preparing reports (status information, process improvement; Column 11,

Lines 18-24; Column 6, Lines 5-10; Figure 7), setting procedures (policies), setting job

descriptions (work scope, work orders, etc.; Column 20, Lines 11-44; Figure 10), setting

help desk action plans, employee action plans (service recommendation; Figures 5-6),

defining service agreements and service components.

- performing a service component and non-service component function in order

to assist a service operator in performance a service action (e.g. create new/update

service recommendations via the service recommendation subsystem; Column 14,

Lines 40-68); and

- utilizing the service action data to perform a service action (Column 13, Lines

11-65; Figures 5-6).

Schlabach et al. further teach that the service activity management system and

method further comprises:

- service parts which are at least one or consumable or non-consumable (repair,

replacement, etc.; Column 10, Lines 39-68; Column 11, Lines 1-11);

- collecting service activity data manually or automatically (on-board monitoring,

service technician input; Column 11, Lines 37-55);

- collecting and storing service activity data related to at least one of the

following: service component (item, equipment, part, etc.; Column 2, Lines 59-68;

Column 3, Lines 1-17; Figure 2) a service operator (technician, personnel, staff, etc.;

Column 5, Lines 30-35; Figures 1, 5-6), or a service account (relationship, contract,

agreement, warranty, etc.; Column 4, Lines 61-68; Column 11, Lines 12-17; Figure 2,

Element 62);

- a web-based (Column 5, Lines 2-12) software application;

- wherein the service component comprises associating one or more parts with a

complex piece of equipment (service component, manufacturing tool, etc.; Column 3,

Lines 5-43; Column 9, Lines 36-60);

- wherein service components include a manufacturing system (i.e. industrial

process) tool (equipment, item, device, etc.) and the corrective action includes replacing

a part in the manufacturing system tool (Column 2, Lines 40-57; Column 6, Lines 35-60;

Column 20, Lines 1-10);

- tracks parts usage and replacement/repair part ordering/requisitioning, i.e. first/

second manufacturing parts wherein the first part replaced the second part (parts usage

tracking; Column 9, Lines 2-8; Column 11, Lines 6-11; Figure 2, Element 60);

- providing service action data to a service operator to perform service actions

(Column 7, Lines 53-68; Column 8, Lines 1-13 and 44-63; Column 10, Lines 24-38); and

- providing at least one test and corrective action for the service component by

matching (comparing, reviewing, analyzing, etc.) current service activity data for the

service component with service activity data stored in the system (Column 7, Lines 53-

68; Column 8, Lines 1-13 and 44-63; Column 10, Lines 24-38; Column 13, Lines 11-65).

Schlabach et al. further teach that a service activity management system and

method wherein the system enables a service operator to perform non-service

component functions/activities by allowing the service operator (user, technician, personnel) to:

- interface (view, interact, review, etc..) with project or customer action plans (work orders, work scope, etc.; Column 20, Lines 11-50; Figure 10);

- integrate (add) a new test or corrective action or amend (edit) a current test or corrective action (recommendation authoring subsystem; Column 14, Lines 40-68; Column 15, Lines 1-3 and 47-68; Figure 7);

- enter (provide, input, etc.) new manufacturing system platform, tool part or service agreement documentation (expert repository, recommendation authoring subsystem, warranty information module, operational parameter database, etc.; Column 8, 14-21; Figure 2);

- review, enter or amend escalation hot-boards (Column 20, Lines 47-63; Figure 10, Element 535);

- access key performance indicators (KPI) dashboards (screens, reports, statistics, etc.), reports (status information, process improvement; Column 11, Lines 18-24; Column 6, Lines 5-10; Figure 7), procedures (service recommendations, inspection procedures, etc.; Column 8, Lines 44-63), job descriptions (work order, repair history; Figure 10), help desk, employee action plans (work order, repair history; Column 8, Lines 44-63; Column 9, Lines 13-22; Figure 10), or files;

- collaborate with other service operators (e.g. instant messaging; Column 5, Lines 45-63); or

- access information relating to manufacturing system service agreements

(Figure 2, Element 62), platforms, tools and parts.
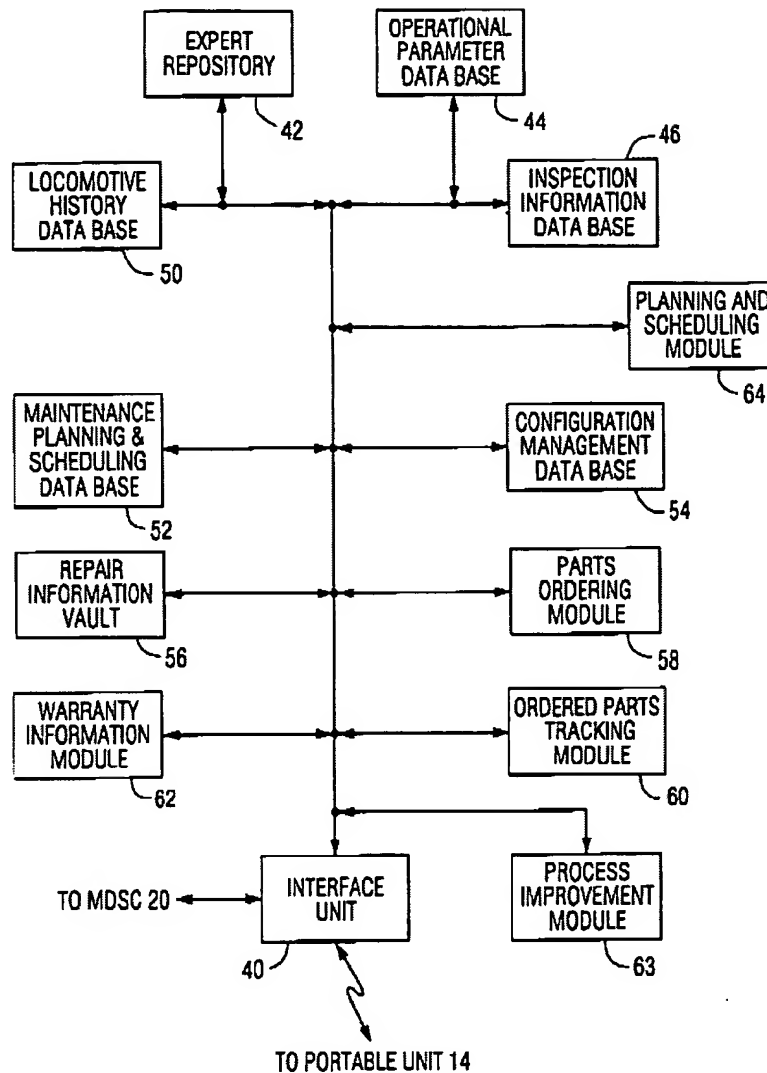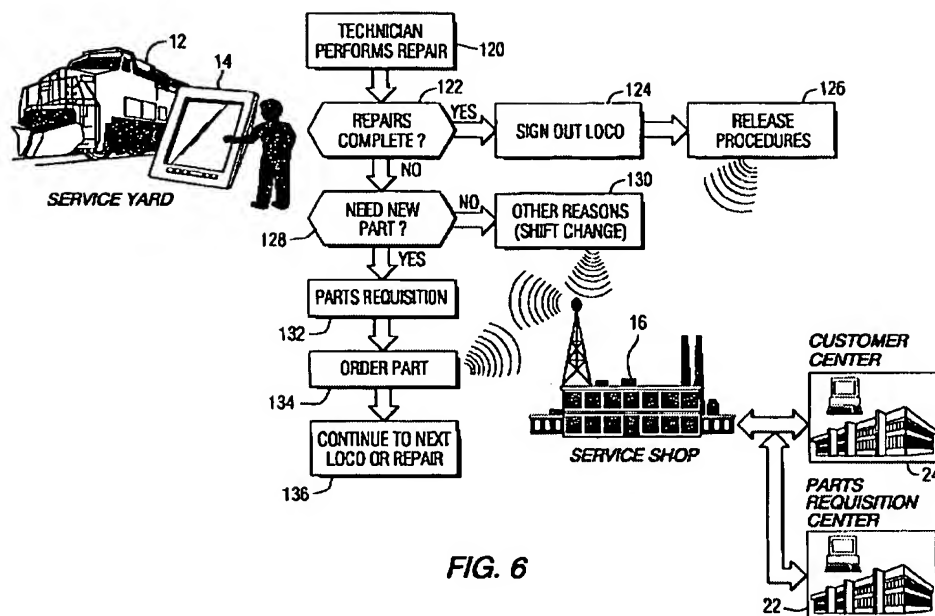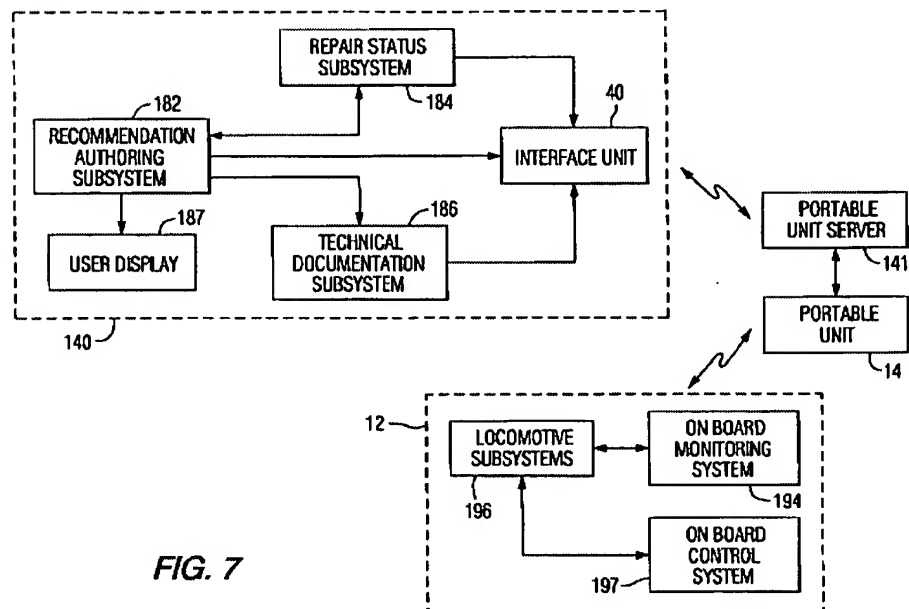

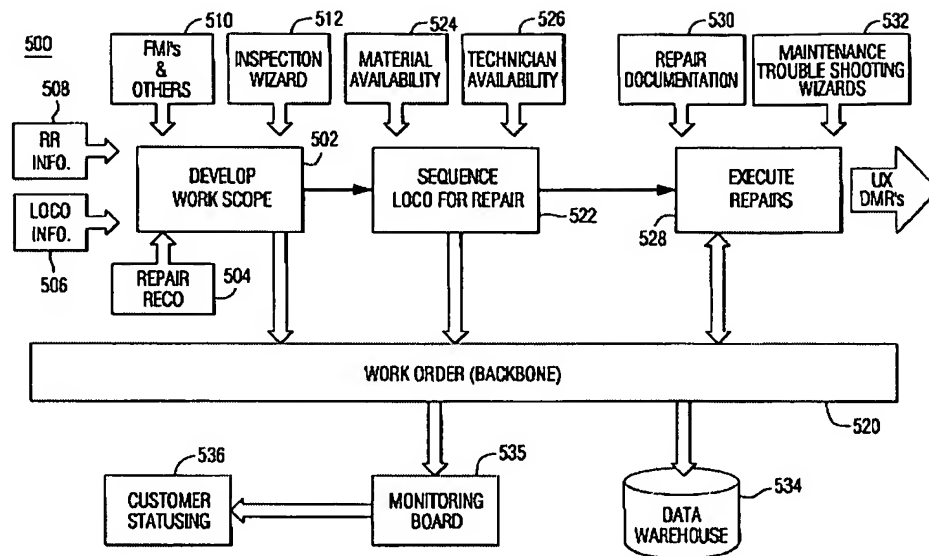FIG. 2

FIG. 6

FIG. 7

FIG. 10

It would have been obvious to one skilled in the art at the time of the invention

that the system and method for activity management as taught by Lurcott et al. would

have benefited from enabling service operators to access a plurality of information

including but not limited to service account information further comprising service

contract, warranty or other information in view of the teachings of Schlabach et al.; the

resultant system/method enabling service operators to access "a plethora of repair,

diagnostic and operational information needed to efficiently and accurately troubleshoot

locomotive problems and undertake the necessary repairs" (Schlabach et al.: Column

5, Lines 30-34).

Regarding Claim 11 Lurcott et al. teach that the system and method for

managing service activities provides interactive and collaborative service functions

(preventative maintenance learning process, pattern matching, troubleshooting, walk through, etc.) as discussed above.

Lurcott et al. does not expressly teach that the service activity management system and method performs service component repair via an interactive case study as claimed.

Schlabach et al. teach performing service component repair via an interactive case study (case-based reasoning, tutorials, wizards, education, instructions, interactive guide, interactive assistance, etc.; Column 7, Lines 53-68; Column 8, Lines 1-13 and 44-63; Column 10, Lines 24-38) in an analogous art of service activity management for the purposes of providing/developing specific service/repair actions (recommendations; Column 8, Lines 1-5).

It would have been obvious to one skilled in the art at the time of the invention that the activity management system and method as taught by Lurcott et al. would have benefited from performing service component repair via interactive case studies in view of the teachings of Schlabach et al.; the resultant system/method providing/developing specific service/repair actions (Schlabach et al.: Column 8, Lines 1-5).

Regarding Claims 13-14 Lurcott et al. does not expressly teach providing a procedure for a test and/or corrective action as claimed.

Schlabach et al. teach providing a procedure (steps, process, method, guide, tasks, etc.) for the test and the corrective action (Column 7, Lines 53-68; Column 8, Lines 1-13 and 44-63; Column 10, Lines 24-38; Column 13, Lines 11-65; Column 14, Lines 40-68) in an analogous art of service activity management for the purposes of providing an expert and/or detailed repository of special and up-to-date service procedures (Column 8, Lines 10-13).

It would have been obvious to one skilled in the art at the time of the invention that the system and method for service activity management as taught by Lurcott et al. would have benefited from providing procedures from tests as well as corrective actions in view of the teachings of Schlabach et al.; the resultant system/method providing service operators with a repository of special and up-to-date service procedures (Schlabach et al.: Column 8, Lines 10-13).

Regarding Claim 17 Lurcott et al. a service activity management system and method further comprising a preventative maintenance learning process wherein service/maintenance patterns are identified through the analysis of historical and/or current service activity data and used to develop corrective actions and/or alerts (Figure 6).

Lurcott et al. does not expressly teach utilizing a result from one test to provide at least one other test and corrective action for the component as claimed.

Schlabach et al. teach utilizing a result from the test to provide another test and corrective action for the service component by matching the result with the service activity data stored in the system (e.g. case-based reasoning, wizard, etc.; Column 7, Lines 53-68; Column 8, Lines 1-13 and 44-63; Column 10, Lines 24-38) in an analogous art of service activity management for the purposes of providing service operators (technicians) with step by step instructions/guides that "walk" service operators through the service action (e.g. trouble shooting wizards; Column 8, lines 44-63).

It would have been obvious to one skilled in the art at the time of the invention that the system and method for managing service activities for semiconductor components as taught by Lurcott et al. would have benefited from utilizing a result from the test to provide another test and corrective action for the service component by matching the result with the service activity data stored in the system in view of the teachings of Schlabach et al.; the resultant system/method providing service operators (technicians) with step by step instructions/guides that walk the service operators through the service action (Schlabach et al.: Column 8, lines 44-63).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Vines et al., U.S. Patent No. 6,006,171, teach a service activity management system and method wherein the system integrates well-known computerized maintenance management and manufacturing process control systems to manage/control complex manufacturing equipment/components.

- Spriggs et al., U.S. Patent No. 6,421,571, teach an activity management system and method for managing service activities related to semiconductor manufacturing wherein the system/method provides a unified graphical user interface to

collect, display and analyze a plurality of manufacturing service components wherein the system/method further comprises data collection, data storage and component configuration subsystems.

- Ogushi et al., U.S. Patent No. 6,385,497, teach an activity management system and method for monitoring and maintaining complex manufacturing equipment/tools.

- Berg et al., U.S. Patent Publication No. 2002/0022969, teach an activity management system and method for remote and automated support of complex manufacturing equipment/components/tools.

- Perry et al., U.S. Patent Publication No. 2003/0220768, teach an activity management system and method for managing complex semiconductor manufacturing components wherein the system/method utilizes well known industry standards/guidelines such as International SEMATECH's e-Diagnostics to collect, analyze and present/report semiconductor manufacturing component services.

- Arima et al., U.S. Patent Publication No. 2003/0226010, teach an online system and method for managing semiconductor manufacturing component service activities/functions.

- Tahara et al., U.S. Patent Publication No. 2004/0071161, teach a service activity management system and method for managing the maintenance of a plurality of semiconductor manufacturing components. Tahara et al. further teaches the well-known use of cluster tool arrangements in semiconductor manufacturing.

- Haga et al., U.S. Patent Publication No. 2004/0176868, teach a semiconductor manufacturing component service activity management system and method comprising data collection, data storage, data analysis and data display subsystems.

- Lin et al., U.S. Patent Publication No. 2005/0004780, teach a system and method for assisting in the repair (servicing, maintenance, service activity, etc.) of complex semiconductor manufacturing components.

- Funk et al., U.S. Patent Publication No. 2005/0047645, teach a service activity management system and method for managing service activities related to semiconductor manufacturing wherein the system further comprises a graphical user interface for accessing all of the system's service functions.

- Cornett et al., EP 0467257A2, teach a computer implemented system and method for maintaining/servicing complex manufacturing components in production lines wherein the system/method comprises maintenance scheduling, engineering change control, parts manual and spare parts inventory management subsystems.

- Lurcott et al., U.S. Provisional Application No. 60/337,821, teach a service activity management system and method for managing service activities relating to semiconductor manufacturing comprising a single integrate graphical user interface provided as a web-based software application for accessing and performing all of the service functions via a plurality of menu screens (list boxes, web navigation tools, etc.).

- Dilger, Karen Abramic, To Protect and Preserve (1997), teaches the well known utilization and availability of computerized maintenance systems relating to

manufacturing systems wherein the systems/method provide graphical user interfaces

and Internet applications to simplify maintenance service activities/functions.

- e-Diagnostics Workshop Group Meeting Attendance (2000) teaches Tokyo

Electron's participation in the International SEMATECH e-Diagnostics project.

- Usami et al., e-Manufacturing Systems for Next-generation Semiconductor

Production (20002) teach the application of well known e-business

technologies/approaches to the semiconductor industry which have led to industry-wide

e-Manufacturing and e-Diagnostic initiatives. Usami et al. further teach that e-

Diagnostics systems/methods "enables a distant repair technician to start up, diagnose

and repair equipment."

- Danner, Phil, The importance of IT infrastructure (2002) teaches the adoption

of International SEMATECH's e-Diagnostics initiatives in the semiconductor industry

wherein e-Diagnostics enables users to manage a plurality of service activities/functions

and includes data collection, data storage, data analysis and preventive/predictive

maintenance subsystems.

- Wohlwend, Harvey, e-Diagnostics/e-Manufacturing Latest News (2002)

teaches an industry-wide initiative to provide remote service activity diagnostics and

management in the semiconductor industry.

- Staff, LT, Tokyo Electron Selects Enigma to Support Web Site (2003) teaches

Tokyo Electron's web-based software application (TELcustomer.com) wherein "TEL has

been using Enigma-based technology for five years to provide critical maintenance and

service procedures to its customers and field support teams. Now, with this application,

TEL is delivering additional productivity to their field services organization and providing

customers with direct, automatic procurement processes for the parts they need."

- Wohlwend, Harvey, e-Diagnostics Guidebook (2002) teaches a system and

method for service activity management of semiconductor manufacturing components.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-

7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Status information for unpublished applications is available through Private PAIR only.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

SJ
3/24/2006

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